

What is claimed is:

1. In combination in a system for the real time delineation of a market barometer in index format based on the determination of the term structure of interest rates for a set of fixed income securities having maturities extending to a pre-select future maturity date comprising;

data input and qualification means for receiving data on market transactions of said set of fixed income securities and filtering said data by removing values failing to meet pre-selected data criteria;

term structure determination means for using said qualified data for the iterative calculation of current term structure of interest rates as defined by said market data;

term structure update means for receiving current data on market transactions on a subset of securities and updating said term structure based on said subset of data; and

portfolio index processor means for iteratively determining index parameters of a portfolio of generic securities based on the current term structure.

2. The system of claim 1 wherein said term structure update means further comprises means for receiving an incomplete data set and determining a subset of pivot points for updating security price data without corresponding new data.

3. The system of claim 1 wherein said data qualification means comprises spread testing means for excluding price data having a bid - ask spread greater than a pre-set maximum.

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4. The system of claim 1 wherein said data qualification means further comprises comparing means for excluding price data having a current ask price less than a previous bid price.

5. The system of claim 1 wherein said term structure determination means receives price data on closing security prices for use in establishing a closing term structure of interest rates associated with said closing price data.

6. The system of claim 1 wherein said term structure determination means further includes means for determining spot rates of a selected security by interpolating from securities having maturity dates proximate to said selected security.

7. In combination in a method for providing a real time index corresponding to a pre-select portfolio of fixed income securities spanning a specified term of maturity dates comprising the steps of:

5 collecting market price data on a proper set of fixed income securities corresponding to the specified term of maturity dates from the close of trading including bid, ask and trade transaction data;

collecting real time price data on current trades forming a
10 subset of securities within said proper set;

iteratively qualifying the data to insure individual price information reflects true market determined pricing;

15 iteratively processing said proper set of qualified data
calculating a term structure of spot interest rates spanning the
maturities of said proper set of data;

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updating said term structure with real time price data wherein said term structure is shifted in accordance with market shifts as reflected in said real time price data; and

20 determining a composite price of said portfolio of pre-select fixed income securities in accordance with said updated term structure wherein said portfolio is expressed in terms of an index having a price, yield to maturity and duration.

8. The method of claim 7 wherein said qualifying step comprises excluding data on securities having a bid - ask spread exceeding a pre-set maximum.

9. The method of claim 7 wherein said qualifying step includes excluding data on securities wherein current ask data is less than previously stored bid data.

10. The method of claim 7 wherein said calculating said term structure of interest rates includes the interpolation of price data for securities having maturities proximate to a security with a coupon date that does not correspond to a maturity date
5 of other securities within the proper set.

11. The method of claim 7 wherein said updating of said proper set of data includes a convex combination of real time price data for pivoting said term structure from other price data that is not current.

12. A system for processing disparate price data on fixed income securities in real time comprising means to provide an index value corresponding to a portfolio of pre-select generic issues expressed in terms of price, yield to maturity and

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5 duration wherein said index is used to support a market in
futures and options contracts corresponding to said index
portfolio and a means for sifting through current price data of
securities corresponding to said generic issues and calculating
a composition of current securities minimizing the cost of said
10 portfolio for delivery pursuant to said futures contract.

13. The system of claim 12 wherein said means to provide an
index value includes data collection means for receiving data on
a proper set of securities associated with the closing price of
said securities as expressed by an established securities
5 market.

14. The system of claim 13 wherein said data collection means
further includes means for receiving data in real time
corresponding to market activity at one or more markets trading
fixed income securities.

15. The system of claim 12 wherein said generic issues are U.S.
Treasuries having maturities of 2, 3, 5 and 10 years.

16. The system of claim 15 wherein said generic issues are
priced in current terms and sorted by least expensive to deliver
on a pre-selected date.

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